

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1 – 27 (cancelled)

Claim 28 (currently amended): A robotic welding unit, comprising at least one robotic arm comprising a TIG welding torch with a tungsten electrode which has a sharpened end, said torch further comprising at least one wire guide/nozzle assembly for an electric arc welding torch, comprising:

- a) at least one nozzle for delivering gas, said nozzle comprising a first axis longitudinally oriented with said nozzle; and
- b) at least one wire-guide system for guiding at least one consumable wire which has a fusible extremity, said wire-guide system comprising a first section, said first section comprising the downstream end of said wire-guide system, said first section further comprising a second axis longitudinally oriented with said first section,

wherein said downstream end directs said consumable wire into said nozzle,
wherein said fusible extremity of consumable wire and said tungsten electrode lie in one and the same plane,

wherein said nozzle further comprising a peripheral wall, said peripheral wall having at least one cut-out through which said wire-guide system passes, and

wherein said first axis and said second axis are oriented at an angle between about 5° and about 50° relative to each other, and

wherein said wire is guided in such a manner that an end of said wire grazes said sharpened end of said tungsten electrode and then enters into an electrical spot created by said tungsten electrode on at least one piece to be welded.

Claim 29 (previously presented): The unit of claim 28, wherein said wire-guide system is fastened to said nozzle.

Claim 30 (previously presented): The unit of claim 28, wherein said first axis and said second axis are oriented at an angle between about 15° and about 45° relative to each other.

Claim 31 (previously presented): The unit of claim 28, wherein said wire-guide system is hollow and generally oblong shaped.

Claim 32 (previously presented): The unit of claim 28, wherein said wire-guide system has the shape of a hollow tube, said hollow tube having an internal diameter between about 0.6 mm and about 2 mm.

Claim 33 (previously presented): The unit of claim 28, wherein said wire-guide system further comprises a second section parallel to said first axis contiguous with a third section, said third section comprising a curved part, wherein said second section and said third section are located outside said nozzle.

Claim 34 (previously presented): The unit of claim 28, wherein said second section comprises third axis, the distance separating said third axis from said first axis being less than about 30 mm.

Claim 35 (previously presented): The unit of claim 28, wherein said nozzle further comprises attachment means for attaching said nozzle to the welding torch.

Claim 36 (previously presented): The unit of claim 35, wherein said attachment means comprises a thread provided on the outer peripheral wall of said nozzle.

Claim 37 (previously presented): The unit of claim 28, wherein said first axis and said second axis are oriented at an angle between about 10° and about 30°.

Claim 38 (currently amended): A robotic process for welding or braze-welding two metallic pieces together comprising the steps of:

- a) providing a robotic welding unit with a robotic arm equipped with a TIG torch ~~of claim 28; of claim 28, wherein said TIG torch comprises a TIG electrode with a sharpened end;~~
- b) feeding the TIG torch with a wire;
- c) guiding the wire in such manner that the end of said wire grazes the sharpened end of the tungsten electrode and then enters into the electrical spot created by means of the tungsten electrode on at least one of the pieces to be welded together by the electric arc; and

- d) fusing the wire thereby welding or braze-welding the metallic pieces together.

Claim 39 (previously presented): The robotic process of claim 38, wherein the pieces are metal sheets or plates having a thickness from between 0.5 mm to 4 mm.

Claim 40 (previously presented): The robotic process of claim 38, wherein the pieces are made of carbon steel, stainless steel, or aluminum or magnesium light alloys.

Claim 41 (previously presented): The robotic process of claim 39, wherein the pieces are coated.

Claim 42 (previously presented): The robotic process of claim 38, wherein the filler wire is made of steel, stainless steel, aluminum or aluminum alloy, nickel or nickel alloy, or copper or copper alloy.